

Claims 1 - 8, 11 - 16, and 28 - 35 are rejected under 35 USC § 112, second paragraph.

Claims 1, 2, 9, 10, and 17 - 21 are rejected under 35 USC § 102(b), as anticipated by U.S. Patent No. 4,802,952, to Kobori et al.

Claims 22 - 27 are rejected under 35 USC § 103(a) as being unpatentable over Kobori et al., in view of the admitted prior art.

Please amend the application as follows:

IN THE DRAWINGS:

Please replace the originally submitted informal drawings with the enclosed formal drawings.

IN THE CLAIMS:

Please amend the claims as follows.

*Claims not being amended are presented in italics for reference purposes.*

1. (Once Amended) A method of anodic bonding at least one layer of conductive material to at least one layer of a second material which is capable of forming an electrochemical cell in combination with said layer of conductive material, said method comprising:

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- a) providing a stack of layers, including said at least one layer of conductive material and said at least one layer of a second material;
  - b) contacting layers to be bonded within said stack of layers with electrodes in a manner such that cations formed during said bonding are directed away from a critical bonding surface; and
  - c) anodically bonding said at least one layer of conductive material and said at least one layer of a second material, wherein a plurality of vertically stacked electrochemical cells are formed, and wherein each layer in said stack of layers is in contact with an electrode.

2. (Once Amended) A method according to Claim 1, wherein said electrodes are contacted with layers to be bonded in a manner such that a contamination surface of said layer of a second material to which said cations are directed, or upon which compounds of said cations are formed during said bonding, can be removed, or such that said contamination surface can be cleaned to remove said compounds, or such that said contamination surface is located relative to said critical bonding surface in a manner such that said contamination surface does not affect the function of a device which includes said critical bonding surface.

A 3. (Once Amended) A method according to Claim 2, wherein said stack of layers comprises alternating layers of said conductive material and said second material, and wherein said alternating layers are bonded using a combination of contacting electrodes which contact each alternating layer separately.

4. *A method according to Claim 3, wherein each alternating layer is contacted separately by a separate electrode.*

A<sup>2</sup> 5. (Once Amended) A method according to Claim 3, wherein each of said layers of conductive material is contacted by an extended contact electrode which does not contact a layer of said second material, and wherein each layer of second material is contacted by an extended contact electrode which does not contact a layer of said conductive material.

6. *A method according to Claim 3 or Claim 4, or Claim 5, wherein a contacting electrode contacts a limited area on a major surface of a layer of second material.*

7. *A method according to Claim 3, or Claim 4, or Claim 5, where a contacting electrode contacts a minor surface of a layer of second material.*

8. (Once Amended) A method according to Claim 1, wherein each electrochemical cell formed is in a parallel circuit with each other electrochemical cell.

9. (Once Amended) A method of anodic bonding at least one conductive material layer to at least one glass layer to form a bonded structure, wherein said method comprises:

a) providing a stack of layers including said at least one conductive material layer and said at least one glass layer;

b) contacting layers to be bonded within said stack with electrodes in a manner such that sodium ions formed during said bonding are directed away from a critical bonding surface; and

c) anodically bonding said at least one conductive material layer and said at least one glass layer, wherein a plurality of vertically stacked electrochemical cells are formed, and wherein each layer in said stack of layers is in contact with an electrode.

10. (Once Amended) A method according to Claim 9, wherein said electrodes are contacted with layers to be bonded in a manner such that a contamination surface of said glass layer to which said sodium ions are directed, or upon which sodium compounds are formed during said bonding, can be removed, or such that said contamination surface can be cleaned to remove said sodium compounds, or such that said contamination surface is located relative to said critical bonding surface in a manner such that said contamination surface does not affect the function of a device which includes said critical bonding surface.

11. (Once Amended) A method according to Claim 10, wherein said stack of layers comprises alternating layers of said conductive material and glass, and wherein said alternating layers are bonded using a combination of contacting electrodes which contact each alternating layer separately.

12. *A method according to Claim 11, wherein each alternating layer is contacted separately by a separate electrode.*

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13. (Once Amended) A method according to Claim 12, wherein each of said conductive material layers is contacted by an extended contact electrode which does not contact a glass layer, and wherein each glass layer is contacted by an extended contact electrode which does not contact a conductive material layer.

14. *A method according to Claim 11 or Claim 12, or Claim 13, where a contacting electrode contacts a limited area on a major surface of a glass layer.*

15. *A method according to Claim 11, or Claim 12, or Claim 13, where a contacting electrode contacts a minor surface of a glass layer.*

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16. (Once Amended) A method according to Claim 9, wherein each electrochemical cell formed is in a parallel circuit with each other electrochemical cell.

17. (Once Amended) A method according to Claim 9, wherein said conductive material is a semiconductor.

18. *A method according to Claim 17, wherein said semiconductor comprises silicon.*

19. *A method according to Claim 9, wherein said glass is a borosilicate glass.*

20. *A method according to Claim 19, wherein said anodic bonding is carried out at a temperature ranging from about 300 °C to about 500 °C.*

21. *A method according to Claim 19 or Claim 20, wherein said anodic bonding is carried out using a DC voltage ranging from about -0.2 kV to about -2.0 kV.*
22. *A method according to Claim 9, wherein said glass is a lithium aluminosilicate -  $\beta$ -quartz glass ceramic.*
23. *A method according to Claim 22, wherein said anodic bonding is carried out at a temperature ranging from about 140 ° to about 180 °C.*
24. *A method according to Claim 22 or Claim 23, wherein said anodic bonding is carried out using a DC voltage ranging from about -0.3kV to about -1.0 kV.*
25. *A method according to Claim 9, wherein said conductive material is a metal.*
26. *A method according to Claim 19 or Claim 22, wherein said conductive material is a metal.*

27. (Once Amended) The method of Claim 9, wherein said bonded structure comprises at least three conductive material layers and at least two glass layers.

28. (Once Amended) A method of anodic bonding at least one layer of a conductive material to at least one layer of a second material which is capable of forming an electrochemical cell in combination with said layer of conductive material, wherein said method comprises:

- a) providing a stack of layers including said at least one layer of conductive material and said at least one layer of a second material;
- b) contacting each layer to be bonded within said stack of layers with an electrode; and

c) anodically bonding said at least one layer of conductive material and said at least one layer of a second material employing a plurality of stacked electrochemical cells.

<sup>29</sup>  
~~30~~. (Once Amended) A method according to Claim <sup>28</sup>~~29~~, wherein layers to be bonded within said stack of layers are each contacted with an electrode in a manner such that cations formed during said anodic bonding are directed away from a critical bonding surface.

<sup>30</sup>  
~~31~~. (Once Amended) A method according to Claim <sup>29</sup>~~30~~, wherein said electrodes are contacted with layers to be bonded in a manner such that a surface contaminated with compounds formed from said cations is directed away from a critical bonding surface or can be removed.

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<sup>31</sup>  
~~32~~. (Once Amended) A method according to Claim <sup>29</sup>~~30~~, wherein said electrodes are contacted with layers to be bonded in a manner such that a surface contaminated with compounds formed from said cations is located relative to a critical bonding surface such that said contaminated surface does not affect the function of a device which includes said critical bonding surface.

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~~33~~. (Once Amended) A method according to Claim <sup>29</sup>~~30~~, wherein said stack of layers comprises alternating layers of said conductive material and said second material, and wherein said alternating layers are bonded using a combination of contacting electrodes which contact each alternating layer separately.

34. *A method according to Claim 31 or Claim 32, wherein a contacting electrode contacts a limited area on a major surface of a layer to be bonded.*

35. *A method according to Claim 31, or Claim 32, wherein a contacting electrode contacts a minor surface of a layer to be bonded.*